Characteristics of novel cardiovascular risk factors of diabetic CKD patients compared to non-diabetic were higher phosphate levels (5.99 ± 0.85 vs 5.36 ± 0.9, $p < 0.05$), TSH levels (7.05 ± 3.77 vs 4.53 ± 3.3, $p < 0.05$), uric acid levels (8.82 ± 1.24 vs 8.22 ± 1.17, $p < 0.05$), hsCRP (5.22 ± 3.1 vs 3.22 ± 2.8, $p < 0.05$) lower hemoglobin (8.57 ± 0.88 vs 9.38 ± 1.41, $p < 0.05$), and severe volume overload ($p < 0.05$). At least three of these risks were present in 51.4% of CKD patients with diabetes.
Conclusion: Prevalence of novel cardiovascular risk factors in diabetic CKD patients along with traditional risk factors compared to non-diabetics may explain higher mortality rates in this cohort of patients. Though this is a cross-sectional study, prospective studies aiming to modify these novel cardiovascular risk factors may likely decrease the cardiovascular mortality in this cohort of patients. Modification of these novel risk factors by renal transplant has shown promising results. This occurs in face of an increase in prevalence of traditional risk factors after transplantation.

Sex specific association and prevalence of insulin resistance (HOMA-IR) in Indian diabetic population

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Objective: Determine the prevalence of IR in Indian diabetic population and its correlation with gender and other metabolic factors.
Method: 250 subjects (131 M/109 F), between the age of 26 and 78 years were recruited for the study. After a 12-hour fasting, blood sample was drawn for biochemical measurements including plasma glucose, insulin and lipids. BMI, waist, and hip circumference were also measured. IR was assessed according to HOMA (Mathew et al. method) and HOMA-IR > 3.98 was used as IR.
Results: The mean ± SD age of the sample population was 51.0 ± 11.7 yrs (51.3 ± 11.6 yrs males and 50.8 ± 11.9 yrs females). The BMI (24.8 kg/m^2 males, 22.7 kg/m^2 females), mean FPI (14.9 ± 19.0 males and 12.5 ± 9.2 females) and over all HOMA-IR (4.9 ± 7.3 males and 4.2 ± 3.8 females) was found to be higher in males than females. The prevalence of IR using HOMA-IR estimated was found to be 33.75% (34.35% males and 33.02% females). No significant correlation was found between HOMA-IR and Age, BMI, BP, Lipid profile in both the genders. But in males, the correlation of HOMA-IR with FPG ($p = 0.001$), WC ($p = 0.013$) and HC (0.019) was significant. In females, HOMA-IR was significantly correlated with FPG ($p \leq 0.0001$). FPI was significantly correlated with HOMA-IR in the both genders ($p < 0.0001$).
Conclusion: The study concludes that IR is relatively common in male and has correlation with obesity and FPG. Risk factors for IR should be detected in diabetics for effective preventive measures.

Correlation of body fat percentage to various metabolic and cardiovascular risk markers in North Indian type II diabetic patients

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Aim: To determine the association of body fat percentage to various metabolic and cardiovascular risk markers in North Indian type II diabetic patients.
Methods: 1700 (902 M, 798 F) T2D subjects, aged between 31 and 79 yrs were enrolled for the study. Waist hip ratio (WHR), waist circumference, body mass index (BMI), systolic blood pressure (SBP), diastolic blood pressure (DBP), lipid profile (total cholesterol, triglycerides, HDL, LDL), pulse wave velocity (baPWV), (ABI), and HbA1c of the subjects were analyzed. Pearson's correlation coefficients (r) of body fat percentage with various metabolic risk factors were determined.
Results: There is a significant positive correlation of body fat percentage with duration of diabetes, HbA1C, total cholesterol, triglyceride, LDL cholesterol, DBP, BMI and WHR, and negative correlation with HDL cholesterol in both men and women ($p < 0.05$). No significant correlation was found with SBP, PWV, and ABI.
Conclusion: Body fat percentage carries good relationship with major cardiovascular risk factors and regular anthropometric measurements are needed in diabetic population to prevent future CV risk.

Hypertension and sub-clinical atherosclerosis – Their correlation with metabolic risk factors in diabetic patients by age

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Aim: To evaluate correlation of hypertension with pulse wave velocity and other metabolic risk factors in type 2 diabetic population.
Methods and materials: 3700 Type 2 diabetes patients were enrolled in this study. Patients were divided into 3 groups according to their age. Group A – (30–45 yrs) had 759, (499 males/260 females). Group B – (46–55 yrs) had 1123, (697 males/496 females). Group C – (56–65 yrs) had 627 (364 males/263 females). baPWV (pulse wave velocity), blood pressure, ABI (ankle-brachial index), HbA1c, duration of diabetes, WHR (waist hip ratio), BMI (body mass Index), lipids of all the subjects in all age groups were measured.
Results: Both SBP and DBP has strong correlation with Age ($p < 0.0001$), baPWV ($p < 0.0001$), duration of diabetes ($p < 0.0001$) in all age groups. Younger group of patients (group A) had significant correlation with HDL, WHR, BMI (Obesity).
Conclusion: PWV and hypertension has shown strong correlation in all age groups. Since PWV is a strong future atherosclerotic disease risk marker, regular screening of pulse wave velocity is advisable in all hypertensive diabetic population in all ages to assess atherosclerosis and prevent future cardiovascular risk.

Effect of sulfasalazine on insulin resistance and endothelial dysfunction in metabolic syndrome

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Background: Metabolic syndrome (MetS) and all its components are independently characterized by the presence of low-grade